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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

**Federal-Mogul Corporation
402 Royal Road
Michigan City, Indiana 46360**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 091-15098-00091	
Issued by:Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:November 20, 2002 Expiration Date:November 20, 2007

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary windshield wiper manufacturing source.

Authorized Individual:	Plant Manager
Source Address:	402 Royal Road, Michigan City, Indiana 46360
Mailing Address:	402 Royal Road, Michigan City, Indiana 46360
General Source Phone Number:	219-872-5150
SIC Code:	3714
County Location:	LaPorte
Source Location Status:	Maintenance attainment for SO ₂ Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) metal wiper arm and blade surface coating operation, identified as E-Coat 1 consisting of the following:
 - (1) One (1) paint booth, identified as E-Coat-1 paint booth, equipped with electrostatic air atomized spray applicators and dry filters for PM overspray control, installed in 1986, exhausted through stack 46, capacity: 4.39 gallons of paint per hour.
 - (2) One (1) natural gas-fired dry off oven, exhausted through stack 44, rated at 0.50 million British thermal units per hour.
 - (3) One (1) natural gas-fired E-coat oven, exhausted through stack 52, rated at 2.00 million British thermal units per hour.
 - (4) One (1) top coat oven, exhausted through stack 50, rated at 1.50 million British thermal units per hour.
 - (5) One (1) dip tank, identified as E-Coat 1-main tank, installed in 1986, exhausted through stack 39, capacity: 3,000 square feet of metal wiper arm and blade surfaces per hour.
- (b) One (1) metal wiper arm and blade surface coating operation, identified as E-Coat 2, consisting of the following:
 - (1) One (1) paint booth, identified as E-Coat-2 paint booth, equipped with electrostatic air atomized spray applicators and dry filters for PM overspray control, installed in

1990, exhausted through stack 153, capacity: 4.39 gallons of paint per hour.

- (2) One (1) natural gas-fired dry off oven, exhausted through stack 147, rated at 0.50 million British thermal units per hour.
- (3) One (1) natural gas-fired E-coat oven, exhausted through stacks 135 and 145, rated at 2.00 million British thermal units per hour.
- (4) One (1) natural gas-fired hot water tank, exhausted through stack 148, rated at 8.00 million British thermal units per hour.
- (5) One (1) dip tank, identified as E-Coat 2-main tank, installed in 1990, exhausted through stack 139, capacity: 3,000 square feet of metal wiper arm and blade surfaces per hour.
- (c) One (1) natural gas-fired burn-off oven, identified as EU 33, installed in 1988, rated at 1.20 million British thermal units per hour, exhausted through stack 33.
- (d) Five (5) natural gas fired boilers, identified as boilers 1 through 5, installed in 1961 and 1962, exhausted through stacks 116, 119, 120, 121, and 122, respectively, rated at a total of 58.46 million British thermal units per hour.
- (e) Three (3) belt blasters, identified as 2226, equipped with a baghouse, exhausted through stack 31, capacity: 1,000 parts per hour, each.
- (f) One (1) cabinet blaster, identified as 2562, equipped with a baghouse, exhausted through stack 30, capacity: 120,000 parts per hour.
- (g) One (1) cabinet blaster, identified as 2365, equipped with a baghouse, exhausted through stack 29, capacity: 20,571 parts per hour.
- (h) One (1) cabinet blaster, identified as 3343, equipped with a baghouse, exhausted through stack 177, capacity: 6 parts per hour.
- (i) Three (3) cabinet blasters, identified as 2193, 2298, and 3201, capacity: 80 parts per hour, each.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, totaling 15.6 million British thermal units per hour, including:
 - (1) One (1) blackened line heater, exhausted to stack 27, rated at 0.244 million British thermal units per hour.
 - (2) One (1) burner associated with the main melting pot, exhausted to stack 212, rated at 1.29 million British thermal units per hour.
 - (3) One (1) rubber dryer, located in the rubber room, exhausted to stack 167, rated at 0.165 million British thermal units per hour.

- (4) One (1) burner associated with the salt tanks, located in the rubber room, exhausted to stack 184, rated at 0.250 million British thermal units per hour.
- (5) Two (2) compression line dryers, located in the rubber room, exhausted to stacks 199 and 200, respectively, rated at 0.740 million British thermal units per hour, total.
- (6) Three (3) extrusion post bake off ovens, located in the rubber room, exhausted to stack 207, rated at 0.900 million British thermal units per hour, total.
- (7) Two (2) dryers, located in the rubber department, identified as rubber graphite operation dryer #2 and extrusion slitter dryer #1. Dryer #2 is exhausted to stack 289, and dryer #1 is exhausted to stack 290. Each dryer is rated at 0.600 million British thermal units per hour.
- (8) One (1) boot drying oven, located in the boot room, exhausted to stack 60, rated at 1.00 million British thermal units per hour.
- (9) Thirteen (13) air make-up units, exhausted to stacks 7, 22, 48, 94, 152, 174, 201, 225, 226, 251, 255, 256, and 271 respectively, rated at 6.11 million British thermal units per hour, total.
- (10) Seven (7) hot water heaters, exhausted to stacks 110, 143, 195, 206, 249 250, and 291, respectively, rated at 1.72 million British thermal units per hour, total.
- (11) One (1) sludge dryer, exhausted to stack 107, rated at 0.153 million British thermal units per hour.
- (12) Three (3) burners for the insignificant degreasing operations, exhausted to stacks 12, 14, 15, and 263, rated at 1.98 million British thermal units per hour, total.
- (13) One (1) pan washer, and one (1) chipper washer, exhausted to stacks 9 and 21, respectively, rated at 0.475 million British thermal units per hour, total.
- (b) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (c) Filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.
- (d) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (e) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including:
 - (1) Five (5) maintenance and tools degreasers, installed in 1985, capacity: 0.30 gallons of solvent per day, each. (326 IAC 8-3-3)
 - (2) Three (3) production parts degreasers, installed in 1985, capacity: 3.0 gallons of alkaline-based cleaner per day, each.
- (f) Cleaners and solvents characterized as follows: a) having a vapor pressure equal to or less than 2 kilopascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38 degrees Celsius (100 degrees Fahrenheit) or; b) having a vapor pressure equal to or less than 0.7 kilopascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20 degrees Celsius (68 degrees Fahrenheit); the use of which for all cleaners and

solvents combined does not exceed 145 gallons per 12 months.

- (g) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches soldering equipment, welding equipment. (326 IAC 6-3-2)
- (h) Closed loop heating and cooling systems.
- (i) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (j) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (k) Heat exchanger cleaning and repair.
- (l) Process vessel degassing and cleaning to prepare for internal repairs.
- (m) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone. (326 IAC 6-3-2)
- (n) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal.
- (o) Paved and unpaved roads and parking lots with public access.
- (p) Asbestos abatement projects regulated by 326 IAC 14-10.
- (q) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (r) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (s) On-site fire and emergency response training approved by the department.
- (t) Emergency generators as follows: Diesel generators not exceeding 1,600 horsepower, and natural gas turbines or reciprocating engines not exceeding 16,000 horsepower, including the following:

One (1) emergency diesel generator, installed in 1985, rated at 4.1 million British thermal units per hour.
- (u) Other emergency equipment as follows: Stationary fire pumps.
- (v) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. (326 IAC 6-3-2)
- (w) Filter or coalescer media changeout.

- (x) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees Celsius).
- (y) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (z) Additional Insignificant Activities: Blackening of metal parts; Nitric acid passivation of metal parts; Pretreatment of metal parts in the E-Coat process with aqueous cleaning, phosphating, chromating, and chromic acid conversion coating; Rubber extrusion and curing; Chlorination of rubber elements; Rubber molding; Plastic extrusion and injection molding; Zinc die casting; Graphite coating of rubber elements; Latex dip operation (boot room); Packaging operations; Wastewater treatment operation; Sludge drying; water to air stripper for soil remediation; and soil vapor extraction system. (326 IAC 6-3-2)

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual"

as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

- (c) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ / Northwest Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Northwest Regional Office
Telephone Number: 219-881-6712
Facsimile Number: 219-881-6745

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable

requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

- (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
 - (3) The changes do not result in emissions which exceed the emissions allowable

under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than one hundred (100) pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Any change or modification that increases the potential to emit PM to 250 tons per year or more shall cause this source to become a major source pursuant to 326 IAC 2-2, PSD, and shall require prior OAQ approval.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or

(C) Waste disposal site.

- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require

certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
- (c) A Risk Management Plan was prepared as required by 40 CFR 68 and submitted to IDEM, OAQ on February 4, 2000.

All documents submitted pursuant to this condition shall include the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4]
[326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Surface Coating

- (a) One (1) metal wiper arm and blade surface coating operation, identified as E-Coat 1 consisting of the following:
 - (1) One (1) paint booth, identified as E-Coat-1 paint booth, equipped with electrostatic air atomized spray applicators and dry filters for PM overspray control, installed in 1986, exhausted through stack 46, capacity: 4.39 gallons of paint per hour.
 - (2) One (1) natural gas-fired dry off oven, exhausted through stack 44, rated at 0.50 million British thermal units per hour.
 - (3) One (1) natural gas-fired E-coat oven, exhausted through stack 52, rated at 2.00 million British thermal units per hour.
 - (4) One (1) top coat oven, exhausted through stack 50, rated at 1.50 million British thermal units per hour.
 - (5) One (1) dip tank, identified as E-Coat 1-main tank, installed in 1986, exhausted through stack 39, capacity: 3,000 square feet of metal wiper arm and blade surfaces per hour.
- (b) One (1) metal wiper arm and blade surface coating operation, identified as E-Coat 2, consisting of the following:
 - (1) One (1) paint booth, identified as E-Coat-2 paint booth, equipped with electrostatic air atomized spray applicators and dry filters for PM overspray control, installed in 1990, exhausted through stack 153, capacity: 4.39 gallons of paint per hour.
 - (2) One (1) natural gas-fired dry off oven, exhausted through stack 147, rated at 0.50 million British thermal units per hour.
 - (3) One (1) natural gas-fired E-coat oven, exhausted through stacks 135 and 145, rated at 2.00 million British thermal units per hour.
 - (4) One (1) natural gas-fired hot water tank, exhausted through stack 148, rated at 8.00 million British thermal units per hour.
 - (5) One (1) dip tank, identified as E-Coat 2-main tank, installed in 1990, exhausted through stack 139, capacity: 3,000 square feet of metal wiper arm and blade surfaces per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

The total volatile organic compounds (VOCs) delivered to the coating applicators in the two (2) metal wiper arm and blade surface coating operations, identified as E-Coat 1 and E-Coat 2, shall not exceed a total of 93.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This will limit the VOC emissions from the entire source, including insignificant activities, to less than one hundred (100) tons per year. Therefore, the requirements

of 326 IAC 2-7 do not apply.

D.1.2 Hazardous Air Pollutants (HAPs) Limitations [326 IAC 2-8-4]

- (a) The worst case single HAP delivered to the coating applicators in the two (2) metal wiper arm and blade surface coating operations, identified as E-Coat 1 and E-Coat 2 shall not exceed a total of 10.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, the requirements of 326 IAC 2-7 do not apply.
- (b) The combination of HAPs delivered to the coating applicators in the two (2) metal wiper arm and blade surface coating operations, identified as E-Coat 1 and E-Coat 2 area shall not exceed a total of twenty-three (23.0) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.1.3 PM₁₀ Emissions [326 IAC 2-8]

The total solids delivered to the applicators of the two (2) paint booths associated with E-Coat 1 and E-Coat 2 shall not exceed 4,700 tons per twelve (12) consecutive month period based on a minimum transfer efficiency of sixty-five percent (65%) and a minimum control efficiency of ninety-eight percent (98%), with compliance determined at the end of each month. This limit is equivalent to PM₁₀ emissions of less than 32.9 tons per year. This limit will satisfy the requirements of 326 IAC 2-8.

D.1.4 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator, for forced warm air dried coatings.

D.1.5 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of E-Coat 1 and E-Coat 2 during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

D.1.6 Particulate Matter (PM) [40 CFR 52 Subpart P]

Pursuant to [40 CFR 52 Subpart P], the PM from the two (2) paint booths, identified as E-Coat-1 and E-Coat-2 shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the two (2) metal wiper arm and blade surface coating operations, identified as E-Coat 1 and E-Coat 2 and their control devices.

Compliance Determination Requirements

D.1.8 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.4 shall be determined pursuant to 326 IAC 8-1-4(a)(3)(A) using formulation data supplied by the coating manufacturer. However, IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.9 Hazardous Air Pollutants (HAPs)

Compliance with the HAPs usage limitations contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.1.10 Hazardous Air Pollutants (HAPs) Emissions

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month based on the total single and total combination HAPs usage for the twelve (12) month period.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.11 Particulate (PM) [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the surface coating operation shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.1.12 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (46,153) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.13 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.4, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1 and D.1.4.

- (1) VOC content of each coating material and solvent used;
 - (2) The amount of coating material and solvent used less water on daily basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.1.2.
- (1) The amount and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) The cleanup solvent usage for each month;
 - (3) The total single and combination of HAPs usage for each month; and
 - (4) The weight of single and combination HAPs emitted for each compliance period.
- (c) To document compliance with Condition D.1.3, the Permittee shall maintain monthly records of the total weight of solids delivered to the applicators of the two (2) paint booths associated with E-Coat 1 and E-Coat 2.
- (d) To document compliance with Condition D.1.12, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.14 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1, D.1.2, and D.1.3, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Combustion

- (c) One (1) natural gas-fired burn-off oven, identified as EU 33, installed in 1988, rated at 1.20 million British thermal units per hour, exhausted through stack 33.
- (d) Five (5) natural gas fired boilers, identified as boilers 1 through 5, installed in 1961 and 1962, exhausted through stacks 116, 119, 120, 121, and 122, respectively, rated at a total of 58.46 million British thermal units per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from the five (5) boilers identified as boiler 1 through boiler 5, totaling 58.46 million British thermal units per hour heat input shall be limited to 0.366 pounds per million British thermal units heat input.

This limitation is based on the following equation:

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBTU) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h = Stack height in feet.

D.2.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the three (3) boilers known as boiler 3, boiler 4, and boiler 5.

Compliance Determination Requirements

There are no specific Compliance Determination Requirements applicable to these emission units.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific Compliance Monitoring Requirements applicable to these emission units.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.3 Reporting Requirements

- (a) A natural gas fired boiler certification, signed by the responsible official, that certifies all of the fuels combusted during the period. The certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34);
- (b) The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Shotblasting

- (e) Three (3) belt blasters, identified as 2226, equipped with a baghouse, exhausted through stack 31, capacity: 1,000 parts per hour, each.
- (f) One (1) cabinet blaster, identified as 2562, equipped with a baghouse, exhausted through stack 30, capacity: 120,000 parts per hour.
- (g) One (1) cabinet blaster, identified as 2365, equipped with a baghouse, exhausted through stack 29, capacity: 20,571 parts per hour.
- (h) One (1) cabinet blaster, identified as 3343, equipped with a baghouse, exhausted through stack 177, capacity: 6 parts per hour.
- (i) Three (3) cabinet blasters, identified as 2193, 2298, and 3201, capacity: 80 parts per hour, each.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Particulate (PM) [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the allowable particulate emission rate from the three (3) belt blasters, identified as 2226, shall not exceed 1.51 pounds per hour, each, when operating at a process weight rate of 450 pounds per hour, each.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the allowable particulate emission rate from the one (1) cabinet blaster, identified as 2562, shall not exceed 1.34 pounds per hour when operating at a process weight rate of 375 pounds per hour.
- (c) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the allowable particulate emission rate from the one (1) cabinet blaster, identified as 2365, shall not exceed 2.16 pounds per hour when operating at a process weight rate of 771 pounds per hour.
- (d) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the allowable particulate emission rate from the one (1) cabinet blaster, identified as 3343, shall not exceed 3.82 pounds per hour when operating at a process weight rate of 1,800 pounds per hour.
- (e) The pounds per hour limitations in sections (a) through (d) were calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Compliance Determination Requirements

D.3.2 Testing Requirements

To demonstrate compliance with Condition D.3.1 the Permittee shall perform PM and PM₁₀ testing on the shotblaster as follows:

- (a) The compliance stack test for unit 3343 shall be performed by March 17, 2003, which corresponds to five (5) years since the latest valid stack test.
- (b) The compliance stack test for unit 2226 shall be performed by March 18, 2003, which corresponds to five (5) years since the latest valid stack test.
- (c) The compliance stack test for unit 2365 shall be performed by March 19, 2003, which corresponds to five (5) years since the latest valid stack test.
- (d) The compliance stack test for unit 2562 shall be performed by March 20, 2003, which corresponds to five (5) years since the latest valid stack test.

D.3.3 Particulate Matter (PM)

In order to comply with Condition D.3.1, the baghouse for PM control shall be in operation and control emissions from the four (4) cabinet blasters, identified as 2562, 2193, 2298, and 3201 at all times that the four (4) cabinet blasters are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific Compliance Monitoring Requirements applicable to these emission units.

SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (e) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including:
 - (1) Five (5) maintenance and tools degreasers, installed in 1985, capacity: 0.30 gallons of solvent per day, each. (326 IAC 8-3-3)
 - (2) Three (3) production parts degreasers, installed in 1985, capacity: 3.0 gallons of alkaline-based cleaner per day, each.
- (g) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches soldering equipment, welding equipment. (326 IAC 6-3-2)
- (m) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone. (326 IAC 6-3-2)
- (v) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. (326 IAC 6-3-2)
- (z) Additional Insignificant Activities: Blackening of metal parts; Nitric acid passivation of metal parts; Pretreatment of metal parts in the E-Coat process with aqueous cleaning, phosphating, chromating, and chromic acid conversion coating; Rubber extrusion and curing; Chlorination of rubber elements; Rubber molding; Plastic extrusion and injection molding; Zinc die casting; Graphite coating of rubber elements; Latex dip operation (boot room); Packaging operations; Wastewater treatment operation; Sludge drying; water to air stripper for soil remediation; and soil vapor extraction system. (326 IAC 6-3-2)

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-3]

The five (5) maintenance and tools degreasers are subject to the provisions of 326 IAC 8-3-3 (Open Top Vapor Degreasing Operations). Pursuant to this rule, the owner or operator of the five (5) maintenance and tools degreasers shall:

- (a) equip the open top vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;
- (b) keep the cover closed at all times except when processing workloads through the degreaser;
- (c) minimize solvent carry-out by:
 - (1) Racking parts to allow complete drainage;
 - (2) Moving parts in and out of the degreaser at less than eleven (11) feet per minute;

- (3) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
- (4) Tipping out any pools of solvent on the cleaned parts before removal;
- (5) Allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;
- (d) not degreaser porous or absorbent materials, such as cloth, leather, wood or rope;
- (e) not occupy more than half of the degreaser's open top area with the workload;
- (f) not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;
- (g) never spray above the vapor level;
- (h) repair solvent leaks immediately, or shut down the degreaser;
- (i) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;
- (j) not use workplace fans near the degreaser opening;
- (k) not allow visually detectable water in the solvent exiting the water separator; and
- (l) provide a permanent, conspicuous label summarizing the operating requirements.

D.4.2 Particulate (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the brazing, cutting, soldering, welding, trimming, grinding and machining, and extruding shall not exceed the allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour.}$$

D.4.3 Volatile Organic Compounds (VOC)

Pursuant to FESOP 091-5568-00091, issued on September 17, 1997, for the vapor extraction system:

The VOC concentration of the exhaust air from the 150 actual cubic feet per minute blower shall be in the range of 46 to 200 parts per million. Any change or modification which may increase potential emissions of VOC in excess of either three (3) pounds per hour or fifteen (15) pounds per day from the equipment covered in the exemption letter must be approved by the Office of Air Quality before such change may occur.

D.4.4 Volatile Organic Compounds (VOC)

Pursuant to FESOP 091-5568-00091, issued on September 17, 1997, for the water-to-air stripper:

The potential VOC emissions from the 200 gallon per minute water-to-air stripper were calculated to be 0.046 pounds per hour (1.1 pounds per day). Any change or modification which may increase potential emissions of VOC in excess of either three (3) pounds per hour or fifteen (15) pounds per day from the equipment covered in the exemption letter must be approved by the Office of Air Quality before such change may occur.

D.4.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the degreasing operations.

Compliance Determination Requirements

There are no specific Compliance Determination Requirements applicable to these emission units.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific Compliance Monitoring Requirements applicable to these emission units.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Federal-Mogul Corporation
Source Address: 402 Royal Road, Michigan City, Indiana 46360
Mailing Address: 402 Royal Road, Michigan City, Indiana 46360
FESOP No.: F 091-15098-00091

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Federal-Mogul Corporation
Source Address: 402 Royal Road, Michigan City, Indiana 46360
Mailing Address: 402 Royal Road, Michigan City, Indiana 46360
FESOP No.: F 091-15098-00091

This form consists of 2 pages

Page 1 of 2

9 This is an emergency as defined in 326 IAC 2-7-1(12)
CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
CThe Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
SEMI-ANNUAL NATURAL GAS-FIRED BOILER CERTIFICATION**

Source Name: Federal-Mogul Corporation
Source Address: 402 Royal Road, Michigan City, Indiana 46360
Mailing Address: 402 Royal Road, Michigan City, Indiana 46360
FESOP No.: F 091-15098-00091

9	Natural Gas Only
9	Alternate Fuel burned
From: _____	To: _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Federal-Mogul Corporation
Source Address: 402 Royal Road, Michigan City, Indiana 46360
Mailing Address: 402 Royal Road, Michigan City, Indiana 46360
FESOP No.: F 091-15098-00091
Facilities: Two (2) metal wiper arm and blade surface coating operations, identified as E-Coat 1 and E-Coat 2
Parameter: VOC emissions
Limit: Total less than 93.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

Month	VOC (tons)	VOC (tons)	VOC (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Federal-Mogul Corporation
Source Address: 402 Royal Road, Michigan City, Indiana 46360
Mailing Address: 402 Royal Road, Michigan City, Indiana 46360
FESOP No.: F 091-15098-00091
Facilities: Two (2) paint booths associated with E-Coat 1 and E-Coat 2
Parameter: Solids delivered to the applicators
Limit: Total not to exceed 4,700 tons per twelve (12) consecutive month period, which is equivalent to PM₁₀ emissions of 32.9 tons per year, with compliance determined at the end of each month.

YEAR: _____

Month	Solids delivered to the applicators	Solids delivered to the applicators	Solids delivered to the applicators
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Federal-Mogul Corporation
Source Address: 402 Royal Road, Michigan City, Indiana 46360
Mailing Address: 402 Royal Road, Michigan City, Indiana 46360
FESOP No.: F 091-15098-00091
Facilities: Two (2) metal wiper arm and blade surface coating operations, identified as E-Coat 1 and E-Coat 2
Parameter: Worst case single HAP
Limit: Total less than 10.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

Month	Single HAP (tons)	Single HAP (tons)	Single HAP (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Federal-Mogul Corporation
Source Address: 402 Royal Road, Michigan City, Indiana 46360
Mailing Address: 402 Royal Road, Michigan City, Indiana 46360
FESOP No.: F 091-15098-00091
Facilities: Two (2) metal wiper arm and blade surface coating operations, identified as E-Coat 1 and E-Coat 2
Parameter: Worst case combined HAPs
Limit: Total less than 23.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

Month	Combination HAPs (tons)	Combination HAPs (tons)	Combination HAPs (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Federal-Mogul Corporation
Source Address: 402 Royal Road, Michigan City, Indiana 46360
Mailing Address: 402 Royal Road, Michigan City, Indiana 46360
FESOP No.: F 091-15098-00091

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name: Federal-Mogul Corporation
Source Location: 402 Royal Road, Michigan City, Indiana 46360
County: LaPorte
SIC Code: 3714
Operation Permit No.: F 091-15098-00091
Permit Reviewer: Craig J. Friederich

On October 4, 2002, the Office of Air Quality (OAQ) had a notice published in the News Dispatch, Michigan City, Indiana, stating that Federal-Mogul Corporation had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate a stationary windshield wiper manufacturing source. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the FESOP: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

Change 1:

The five (5) natural gas fired boilers, identified as boilers1 through 5, were all constructed prior to June 8, 1972. Therefore, the heat input capacity of each boiler should be combined to calculate the emission limitation pursuant to 326 IAC 6-2-3. Therefore, the description in Condition A.2 as well as the description box in Section D.2 were revised. Condition D.2.1 (Particulate) was revised to remove "Matter" and "PM" from this condition, because 326 IAC 6-2 is for Particulate Emissions not Particulate Matter Emissions. This condition is also revised to indicate the new allowable emission rate pursuant to 326 IAC 6-2-3 when combining the five (5) boilers. The five (5) boilers are in compliance with the new 0.366 pounds of PM per million British thermal unit limit pursuant to 326 IAC 6-2-3. Therefore, the following revisions have been made:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (d) ~~Two (2) natural gas-fired boilers, identified as boilers 1 and 2, installed in 1961, exhausted through stacks 116 and 119, respectively, rated at 4.63 million British thermal units per hour, each.~~
- (e) ~~Two (2) natural gas-fired boilers, identified as boilers 3 and 4, installed in 1961, exhausted through stacks 120 and 121, respectively, rated at 16.4 million British thermal units per hour, each.~~
- (f) ~~One (1) natural gas-fired boiler, identified as boiler 5, installed in 1962, exhausted through stack 122, rated at 16.4 million British thermal units per hour.~~

- (d) **Five (5) natural gas fired boilers, identified as boilers 1 through 5, installed in 1961 and 1962, exhausted through stacks 116, 119, 120, 121, and 122, respectively, rated at a total of 58.46 million British thermal units per hour.**
- (g e) Three (3) belt blasters, identified as 2226, equipped with a baghouse, exhausted through stack 31, capacity: 1,000 parts per hour, each.
- (h f) One (1) cabinet blaster, identified as 2562, equipped with a baghouse, exhausted through stack 30, capacity: 120,000 parts per hour.
- (i g) One (1) cabinet blaster, identified as 2365, equipped with a baghouse, exhausted through stack 29, capacity: 20,571 parts per hour.
- (j h) One (1) cabinet blaster, identified as 3343, equipped with a baghouse, exhausted through stack 177, capacity: 6 parts per hour.
- (k i) Three (3) cabinet blasters, identified as 2193, 2298, and 3201, capacity: 80 parts per hour, each.

D.2.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3]

- (a) Pursuant to 326 IAC 6-2-3 (**Particulate Emission Limitations for Sources of Indirect Heating**), ~~the allowable PM emission rate from the four (4) boilers, identified as boiler 1, boiler 2, boiler 3, and boiler 4, shall not exceed 0.469 pounds per million British thermal units heat input.~~ **the particulate emissions from the five (5) boilers identified as boiler 1 through boiler 5, totaling 58.46 million British thermal units per hour heat input shall be limited to 0.366 pounds per million British thermal units heat input.**
- (b) ~~Pursuant to 326 IAC 6-2-3, the allowable PM emission rate from the one (1) boiler, identified as boiler 5, shall not exceed 0.518 pounds per million British thermal units heat input.~~

This limitation is based on the following equation:

$$P_t = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

P_t =Pounds of particulate matter emitted per million British thermal units (lb/MMBTU) heat input

Q =Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the name-plate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C =Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micro-grams per cubic meter for a period not to exceed a sixty (60) minute time period.

N =Number of stacks in fuel burning operation.

a =Plume rise factor which is used to make allowance for less than theoretical

plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h =Stack height in feet.

Change 2:

The description of the facilities in Section A.3(a)(10) has been revised to include Stack 291 as follows:

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, totaling 15.6 million British thermal units per hour, including:
 - (10) Seven (7) hot water heaters, exhausted to stacks 110, 143, 195, 206, 249 ~~and~~ 250, **and 291**, respectively, rated at 1.72 million British thermal units per hour, total.

Change 3:

The description of the facility in Section A.3(v) as well as the description box in Section D.4 has been revised as follows to correct a typographical error:

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (v) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. (326 IAC 6-3-2)

Change 4:

The rule cite in Section A.3(y) has been corrected as follows:

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (y) A laboratory as defined in 326 IAC 2-7-1(201)(~~E~~ **D**) .

Change 5:

The general provisions; term of permit rule cite was added to Condition B.3 (Permit Term). In order to clarify the permit term for renewals, the following change has been made:

B.3 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the ~~original~~ **issuance** date of **this permit**, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

Change 6:

Since Condition B.8(c) (Duty to Supplement and Provide Information) already addresses confidentiality, the last sentence of (b) was revised to remove the statement about confidential information, and (c) was updated for clarity. Also, the condition was revised to change a rule reference. Subpart (c) references 326 IAC 17. This rule was repealed by the Air Pollution Control Board on January 26, 2000. The new rule reference has been added as follows:

**B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]
[326 IAC 2-8-5(a)(4)]**

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. ~~or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-8-4(5)(E)]~~
- (c) **For information furnished by the Permittee to IDEM, OAQ,** the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1 When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

Change 7:

The requirement to include emergencies in the Quarterly Deviation and Compliance Monitoring Report has been moved from Condition B.15 to Condition B.14. In Condition B.14 (Emergency Provisions), the statement at the end of (b)(4) has been removed, because this is added as (h) as follows:

B.14 Emergency Provisions [326 IAC 2-8-12]

- (b) (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;
- Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
- ~~Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]~~
- (h) **The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.**

Change 8:

Condition B.15(c) (Deviations from Permit Requirements and Conditions), has been deleted and was incorporated as Condition B.14(h) (Emergency Provisions).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

~~(c) — Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.~~

Change 9:

Condition B.18 (Permit Amendment or Revision) has been revised to replace “should” with “shall” in (b) as follows:

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application ~~should~~ **shall** be certified by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

Change 10:

In order to be consistent with 326 IAC 2-8-15 (a)(5), the rule cite has been revised in Condition B.19(a)(5) B.19 (Operational Flexibility). Condition B.19(b) has been removed, because this is a Part 70 requirement, but not a FESOP requirement. The changes are as follows:

B.19 Operational Flexibility [326 IAC 2-8-15] **[326 IAC 2-8-11.1]**

(a) (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(**2**), (c)(1), and (d).

~~(b) — The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:~~

~~(1) — A brief description of the change within the source;~~

~~(2) — The date on which the change will occur;~~

~~(3) — Any change in emissions; and~~

~~(4) — Any permit term or condition that is no longer applicable as a result of the change.~~

~~The notification which shall be submitted by the Permittee does not require the certification~~

by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Change 11:

In Condition B.22 (c) (Transfer of Ownership or Operational Control), the rule cite has been corrected as follows.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-44 **10(b)(3)**].

Change 12:

326 IAC 2-1.1-7 specifies that nonpayment may result in revocation of the permit. This is not specified in 326 IAC 2-8; therefore, this rule cite is being added to Condition B.23. Also, the section and phone number of the department that the Permittee can contact has been corrected in Condition B.23(c) as follows:

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]

- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 **4320** (ask for OAQ, ~~Technical Support and Modeling Section~~ **I/M & Billing Section**), to determine the appropriate permit fee.

Change 13:

Condition C.1 (Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour) has been added to the FESOP as follows. All remaining Section C conditions have been renumbered.

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than one hundred (100) pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

Change 14:

Condition C.8(e), (now Condition C.9(e)) (Asbestos Abatement Projects) has been revised to correct the rule cite as follows:

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-~~41~~, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes

or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

Change 15:

The following was added to Condition C.10, (now Condition C.11) (Compliance Requirements) to state what IDEM, OAQ does when stack testing, monitoring, or reporting is required to assure compliance with applicable requirements as follows:

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements **by issuing an order under 326 IAC 2-1.1-11**. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Change 16:

Condition C.13 (now Condition C.14) (Risk Management Plan) has been revised to clarify when IDEM, OAQ received a RMP from the source and remove the requirement of verification from the source that they submitted a RMP and when. A submittal date is not required by the provisions of 40 CFR 68. Therefore, the condition has been reworded as follows:

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
- (c) ~~A verification to IDEM, OAQ, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68 on February 4, 2000.~~ **A Risk Management Plan was prepared as required by 40 CFR 68 and submitted to IDEM, OAQ on February 4, 2000.**

Change 17:

In Condition C.14(e), (now Condition C.15(e)) (Compliance Response Plan - Preparation, Implementation, Records, and Reports), the rule cite was corrected to reflect the FESOP rules instead of the Title V rules.

C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of ~~326 IAC 2-7-16~~ **326 IAC 2-8-12** (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

Change 18:

Condition C.17(d), (now Condition C.18(d)) (General Reporting Requirements) has been revised to indicate all forms as follows:

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (d) Unless otherwise specified in this permit, ~~any quarterly~~ **all reports** required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. ~~The reports (do)~~ **All reports do** require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Change 19:

Condition D.1.4 was replaced with the new Condition D.1.4, and Condition D.1.5 was added as follows.

D.1.4 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

~~Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volume weighted average volatile organic compound (VOC) content of coating applied to shall be limited to 3.5 pounds of VOCs per gallon of coating less water, as delivered to the applicator for any calendar day, for forced warm air dried coatings.~~

~~Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.~~

Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator, for forced warm air dried coatings.

D.1.5 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of E-Coat 1 and E-Coat 2 during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

Change 20:

Condition D.1.8 has been deleted since the phrase "with compliance demonstrated at the end of each month" was already in Condition D.1.1 as follows:

~~D.1.8 VOC Emissions~~

~~Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month) based on the total volatile organic compound usage for the twelve (12) month period).~~

Change 21:

Condition D.1.11 has had the typographical error corrected as follows:

D.1.11 Particulate (PM) [326 IAC 6-3-2(d)]

~~Pursuant to 326 IAC 326 IAC 6-3-2(d),~~ particulate from the surface coating operation shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

Change 22:

Condition D.1.13(a) has been revised as follows:

D.1.13 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.4, the Permittee shall maintain records in accordance with (1) through ~~(4 5)~~ below. Records maintained for (1) through ~~(4 5)~~ shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1 and D.1.4.
- (1) The ~~amount and~~ VOC content of each coating material and solvent used. ~~Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;~~
- (2) **The amount of coating material and solvent used less water on daily basis.**
- (A) **Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.**
- (B) **Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.**
- ~~(2)(3)~~ (3) The cleanup solvent usage for each month;
- ~~(3)(4)~~ (4) The total VOC usage for each month; and
- ~~(4)(5)~~ (5) The weight of VOCS emitted for each compliance period.

Change 23:

The rules cited in the Record Keeping and Reporting Requirement section in Section D.2 have been corrected as follows:

Record Keeping and Reporting Requirement ~~[326 IAC 2-7-5(3)] [326 IAC 2-7-19]~~ **[326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

Change 24:

The language in Condition D.2.3 has been revised as follows for clarity:

D.2.3 Reporting Requirements

- (a) A **natural gas fired boiler** certification, signed by the responsible official, that certifies all of the fuels combusted during the period. The ~~natural gas-fired boiler~~ certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34);

Change 25:

Previously, the terms "particulate" and "particulate matter" were both used in the 326 IAC 6-3, but revisions were made to the rule which became effective on June 12, 2002 that included using the term "particulate" is used consistently in 326 IAC 6-3. In addition, Condition D.3.1(f) has been deleted since the allowable particulate emission rate for process weight rates less than 100 pounds per hour is now covered by Condition C.1. Therefore, Conditions D.3.1 and D.4.2 have been revised as

follows:

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

- (a) **Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)** the allowable **PM particulate** emission rate from the three (3) belt blasters, identified as 2226, shall not exceed 1.51 pounds per hour, each, when operating at a process weight rate of 450 pounds per hour, each.
- (b) **Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)** the allowable **PM particulate** emission rate from the one (1) cabinet blaster, identified as 2562, shall not exceed 1.34 pounds per hour when operating at a process weight rate of 375 pounds per hour.
- (c) **Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)** the allowable **PM particulate** emission rate from the one (1) cabinet blaster, identified as 2365, shall not exceed 2.16 pounds per hour when operating at a process weight rate of 771 pounds per hour.
- (d) **Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)** the allowable **PM particulate** emission rate from the one (1) cabinet blaster, identified as 3343, shall not exceed 3.82 pounds per hour when operating at a process weight rate of 1,800 pounds per hour.
- (e) The pounds per hour limitations in sections (a) through (d) were calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- ~~(f) Pursuant to 326 IAC 6-3-2(e) (Particulate emission limitations, work practices, and control technologies), the allowable **PM particulate** emission rate from the three (3) cabinet blasters, identified as 2193, 2298, and 3201, shall not exceed 0.551 pounds per hour, each, when operating at a process weight rate of less than 100 pounds per hour.~~

D.4.2 Particulate Matter (PM) [326 IAC 6-3-2]

~~Pursuant to 326 IAC 6-3 (Particulate emission limitations, work practices, and control technologies),~~
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable **PM particulate** emission rate from the brazing, cutting, soldering, welding, trimming, grinding and machining, and extruding shall not exceed the allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour.}$$

Change 26:

All references to the Office of Air Management in Conditions D.4.3 and D.4.4 have been replaced with the Office of Air Quality.

Change 27:

Condition D.4.5 has been revised as follows to clarify which facilities a Preventive Maintenance Plan is required to be prepared for. The PMP is applicable to emission units as well as control devices. The wording of 326 IAC 1-6-5 clarifies that the PMP includes emission units since the PMP can be changed to reduce excessive malfunctions in process equipment, as well as control devices. Therefore, Condition D.4.5 has been revised as follows:

D.4.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for ~~these emissions unit and its control device~~ **the degreasing operations**.

Change 28:

In the Emergency Occurrence Report form, the first box was revised to include the word "working" in order to be consistent with 326 IAC 2-8-12(b)(5) and the Emergency Provision as follows:

This form consists of 2 pages

Page 1 of 2

- 9** This is an emergency as defined in 326 IAC 2-7-1(12)
- C** The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 - C** The Permittee must submit notice in writing or by facsimile within two (2) **working** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

Change 29:

The Natural Gas-Fired Boiler Certification has had the following wording changed as follows:

~~Attach a signed certification to complete this report.~~ **A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.**

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	Federal-Mogul Corporation
Source Location:	402 Royal Road, Michigan City, Indiana 46360
County:	LaPorte
SIC Code:	3714
Operation Permit No.:	F 091-15098-00091
Permit Reviewer:	Craig J. Friederich

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Federal-Mogul Corporation relating to the operation of a stationary windshield wiper manufacturing source. Cooper Automotive, ANCO Products, now Federal-Mogul Corporation was issued FESOP 091-5568, on September 17, 1997.

History

AAF 091-10287 issued on March 18, 1999, changed the name of the company to Federal-Mogul Corporation.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) metal wiper arm and blade surface coating operation, identified as E-Coat 1 consisting of the following:
 - (1) One (1) paint booth, identified as E-Coat-1 paint booth, equipped with electrostatic air atomized spray applicators and dry filters for PM overspray control, installed in 1986, exhausted through stack 46, capacity: 4.39 gallons of paint per hour.
 - (2) One (1) natural gas-fired dry off oven, exhausted through stack 44, rated at 0.50 million British thermal units per hour.
 - (3) One (1) natural gas-fired E-coat oven, exhausted through stack 52, rated at 2.00 million British thermal units per hour.
 - (4) One (1) top coat oven, exhausted through stack 50, rated at 1.50 million British thermal units per hour.
 - (5) One (1) dip tank, identified as E-Coat 1-main tank, installed in 1986, exhausted through stack 39, capacity: 3,000 square feet of metal wiper arm and blade surfaces per hour.

- (b) One (1) metal wiper arm and blade surface coating operation, identified as E-Coat 2, consisting of the following:
 - (1) One (1) paint booth, identified as E-Coat-2 paint booth, equipped with electrostatic air atomized spray applicators and dry filters for PM overspray control, installed in 1990, exhausted through stack 153, capacity: 4.39 gallons of paint per hour.
 - (2) One (1) natural gas-fired dry off oven, exhausted through stack 147, rated at 0.50 million British thermal units per hour.
 - (3) One (1) natural gas-fired E-coat oven, exhausted through stacks 135 and 145, rated at 2.00 million British thermal units per hour.
 - (4) One (1) natural gas-fired hot water tank, exhausted through stack 148, rated at 8.00 million British thermal units per hour.
 - (5) One (1) dip tank, identified as E-Coat 2-main tank, installed in 1990, exhausted through stack 139, capacity: 3,000 square feet of metal wiper arm and blade surfaces per hour.
- (c) One (1) natural gas-fired burn-off oven, identified as EU 33, installed in 1988, rated at 1.20 million British thermal units per hour, exhausted through stack 33.
- (d) Two (2) natural gas-fired boilers, identified as boilers 1 and 2, installed in 1961, exhausted through stacks 116 and 119, respectively, rated at: 4.63 million British thermal units per hour, each.
- (e) Two (2) natural gas-fired boilers, identified as boilers 3 and 4, installed in 1961, exhausted through stacks 120 and 121, respectively, rated at 16.4 million British thermal units per hour, each.
- (f) One (1) natural gas-fired boiler, identified as boiler 5, installed in 1962, exhausted through stack 122, rated at 16.4 million British thermal units per hour.
- (g) Three (3) belt blasters, identified as 2226, equipped with a baghouse, exhausted through stack 31, capacity: 1,000 parts per hour, each.
- (h) One (1) cabinet blaster, identified as 2562, equipped with a baghouse, exhausted through stack 30, capacity: 120,000 parts per hour.
- (i) One (1) cabinet blaster, identified as 2365, equipped with a baghouse, exhausted through stack 29, capacity: 20,571 parts per hour.
- (j) One (1) cabinet blaster, identified as 3343, equipped with a baghouse, exhausted through stack 177, capacity: 6 parts per hour.
- (k) Three (3) cabinet blasters, identified as 2193, 2298, and 3201, each equipped with a baghouse, capacity: 80 parts per hour, each.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving New Source Review Approval

There are no new facilities proposed at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, totaling 15.6 million British thermal units per hour, including:
 - (1) One (1) blackened line heater, exhausted to stack 27, rated at 0.244 million British thermal units per hour.
 - (2) One (1) burner associated with the main melting pot, exhausted to stack 212, rated at 1.29 million British thermal units per hour.
 - (3) One (1) rubber dryer, located in the rubber room, exhausted to stack 167, rated at 0.165 million British thermal units per hour.
 - (4) One (1) burner associated with the salt tanks, located in the rubber room, exhausted to stack 184, rated at 0.250 million British thermal units per hour.
 - (5) Two (2) compression line dryers, located in the rubber room, exhausted to stacks 199 and 200, respectively, rated at 0.740 million British thermal units per hour, total.
 - (6) Three (3) extrusion post bake off ovens, located in the rubber room, exhausted to stack 207, rated at 0.900 million British thermal units per hour, total.
 - (7) Two (2) dryers, located in the rubber department, identified as rubber graphite operation dryer #2 and extrusion slitter dryer #1. Dryer #2 is exhausted to stack 289, and dryer #1 is exhausted to stack 290. Each dryer is rated at 0.600 million British thermal units per hour.
 - (8) One (1) boot drying oven, located in the boot room, exhausted to stack 60, rated at 1.00 million British thermal units per hour.
 - (9) Thirteen (13) air make-up units, exhausted to stacks 7, 22, 48, 94, 152, 174, 201, 225, 226, 251, 255, 256, and 271 respectively, rated at 6.11 million British thermal units per hour, total.
 - (10) Seven (7) hot water heaters, exhausted to stacks 110, 143, 195, 206, 249 and 250, respectively, rated at 1.72 million British thermal units per hour, total.
 - (11) One (1) sludge dryer, exhausted to stack 107, rated at 0.153 million British thermal units per hour.
 - (12) Three (3) burners for the insignificant degreasing operations, exhausted to stacks 12, 14, 15, and 263, rated at 1.98 million British thermal units per hour, total.
 - (13) One (1) pan washer, and one (1) chipper washer, exhausted to stacks 9 and 21, respectively, rated at 0.475 million British thermal units per hour, total.

- (b) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (c) Filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.
- (d) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (e) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including:
 - (1) Five (5) maintenance and tools degreasers, installed in 1985, capacity: 0.30 gallons of solvent per day, each. (326 IAC 8-3-3)
 - (2) Three (3) production parts degreasers, installed in 1985, capacity: 3.0 gallons of alkaline-based cleaner per day, each.
- (f) Cleaners and solvents characterized as follows: a) having a vapor pressure equal to or less than 2 kilopascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38 degrees Celsius (100 degrees Fahrenheit) or; b) having a vapor pressure equal to or less than 0.7 kilopascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20 degrees Celsius (68 degrees Fahrenheit); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (g) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches soldering equipment, welding equipment. (326 IAC 6-3-2)
- (h) Closed loop heating and cooling systems.
- (i) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (j) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (k) Heat exchanger cleaning and repair.
- (l) Process vessel degassing and cleaning to prepare for internal repairs.
- (m) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone. (326 IAC 6-3-2)
- (n) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal.
- (o) Paved and unpaved roads and parking lots with public access.
- (p) Asbestos abatement projects regulated by 326 IAC 14-10.
- (q) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (r) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling

tower.

- (s) On-site fire and emergency response training approved by the department.
- (t) Emergency generators as follows: Diesel generators not exceeding 1,600 horsepower, and natural gas turbines or reciprocating engines not exceeding 16,000 horsepower, including the following:

One (1) emergency diesel generator, installed in 1985, rated at 4.1 million British thermal units per hour.
- (u) Other emergency equipment as follows: Stationary fire pumps.
- (v) Grinding and machining operations controller with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. (326 IAC 6-3-2)
- (w) Filter or coalescer media changeout.
- (x) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees Celsius).
- (y) A laboratory as defined in 326 IAC 2-7-1(20)(C).
- (z) Additional Insignificant Activities: Blackening of metal parts; Nitric acid passivation of metal parts; Pretreatment of metal parts in the E-Coat process with aqueous cleaning, phosphating, chromating, and chromic acid conversion coating; Rubber extrusion and curing; Chlorination of rubber elements; Rubber molding; Plastic extrusion and injection molding; Zinc die casting; Graphite coating of rubber elements; Latex dip operation (boot room); Packaging operations; Wastewater treatment operation; Sludge drying; water to air stripper for soil remediation; and soil vapor extraction system. (326 IAC 6-3-2)

Existing Approvals

- (a) FESOP 091-5568-00091, issued on September 17, 1997;
- (b) SPR 091-9505-00091, issued on May 5, 1999;
- (c) AAF 091-9677-00091, issued October 26, 1998, and
- (d) AAF 091-10287-00091, issued March 18, 1999.

All conditions from previous approvals were incorporated into this FESOP except the following:

- (a) Condition D.2.1(b), the VOC limit of less than 93.4 tons per year for the surface coating booths;

Reason not incorporated: Based on the most recent AP-42 emission factors for combustion, a FESOP VOC limit of less than 93.0 tons per year for the surface coating operations is required. This limit, combined with the unrestricted potential to emit from the five (5) natural gas fired boilers as well as the insignificant natural gas combustion, will ensure that the

potential to emit VOC from the entire source will be less than one-hundred (100) tons per year.

- (b) Condition D.2.2(a), the single HAP limit of less than 9.40 tons per year for the surface coating booths;

Reason not incorporated: The FESOP single HAP limit of less than 9.40 tons per year, for the surface coating operations has been changed by IDEM, OAQ to less than 10.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limit has been changed because none of the HAPs emitted from the surface coating operations are also emitted from any other facilities located at the source. This limit, will ensure that the potential to emit single HAP from the entire source will be less than ten (10) tons per year.

- (c) FESOP 091-5568-00091, issued on September 17, 1997;

Conditions D.4.1 and D.4.2

Reason not incorporated: The insignificant degreasers located at the source are open top vapor degreasers which were constructed after January 1, 1980. Therefore, the requirements of 326 IAC 8-3-3 (Open Top Vapor Degreasing Operations) are applicable instead of 326 IAC 8-3-2 and 326 IAC 8-3-5, cited in Conditions D.4.1 and D.4.2.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on November 29, 2001. Additional information was received on April 18, 2002, and June 21, 2002.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See pages 1 through 16 of 16 of Appendix A of this document for detailed emissions calculations.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/year)
PM	greater than 100, less than 250
PM ₁₀	greater than 100, less than 250
SO ₂	less than 100
VOC	greater than 100, less than 250
CO	less than 100
NO _x	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Unrestricted Potential Emissions (tons/year)
Chloroprene	less than 10
Benzene	less than 10
Dichlorobenzene	less than 10
Formaldehyde	less than 10
Hexane	less than 10
Cadmium	less than 10
Glycol Ethers	greater than 10
Chromium Compounds	less than 10
Lead	less than 10
Nickel Compounds	less than 10
Maganese Compounds	less than 10
Toluene	less than 10
Xylene	less than 10
Perc	less than 10
Carbon Disulfide	less than 10
MEK	greater than 10
Napthalene	less than 10
HCL	less than 10
Chlorine	less than 10
TOTAL	single greater than 10, total greater than 25

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM₁₀ and VOC are equal to or

greater than one-hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit After Issuance

The source, issued a FESOP on September 17, 1997 has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP (F 091-5568-00091; issued on September 17, 1997).

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Surface Coating Operations (E-Coat 1, E-Coat 2)	less than 35.3	less than 32.9 (c)	--	less than 93.0	--	--	Single less than 10.0 combination less than 23.0
E-Coat 1 and E-Coat 2 Combustion	0.120	0.483	0.039	0.349	5.33	6.35	0.120
Five (5) natural gas-fired boilers	0.486	1.95	0.154	1.41	21.5	25.6	0.484
Shotblasting	59.1 (a)	59.6 (b)	--	--	--	--	0.001
Insignificant Activities	5.00	5.00	0.100	5.00	6.61	10.1	1.00
Total PTE After Issuance	less than 100	less than 100	0.292	less than 100	33.4	42.1	Single less than 10 Total less than 25

- (a) The PM limit for the shotblasting reflect the 326 IAC 6-3-2 allowable emissions.
- (b) The PM₁₀ limit for the shotblasting reflect the full potential to emit before controls.

- (c) The PM₁₀ limit for the surface coating operations is the balance of the less than one-hundred (100) ton per year FESOP limit for this controlled operation.

County Attainment Status

The source is located in LaPorte County.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. LaPorte County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

- (a) The five (5) natural gas fired boilers are not subject to 40 CFR Part 60.40, Subpart Dc (Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units) because each of the boilers were constructed before the rule applicability date of June 9, 1989.
- (b) The insignificant degreasing activities are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Subpart T because these degreasing activities do not use any of the halogenated solvents listed in this subpart.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

The potential to emit of all criteria pollutants from the entire source is less than two-hundred fifty (250) tons per year. The source was constructed prior to the rule applicability date of August 7, 1977, and the source is not one of the twenty-eight (28) listed source categories. The Significant Permit Revision, SPR 091-9505-00091, issued on May 5, 1999, was a minor modification to an existing minor source pursuant to 326 IAC 2-2. The potential to emit after that Significant Permit Revision was still less than two-hundred fifty (250) tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in LaPorte County and the potential to emit all criteria pollutants is less than one hundred (100) tons per year. Therefore 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM₁₀ and VOC shall be limited to less than one hundred (100) tons per year. In addition, the amount of a single HAP shall be limited to less than ten (10) tons per year and the combination of all HAPs shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-2-3 (Particulate Emissions Limitations for Facilities Constructed prior to September 21, 1983)

The four (4) boilers, identified as boiler 1, boiler 2, boiler 3, and boiler 4, each installed in 1961, firing natural gas, with a total heat input capacity of 42.06 million British thermal units per hour, must comply with the PM emission limitation of 326 IAC 6-2-3. This limitation is based on the following equation as given in 326 IAC 6-2-3:

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBTU) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h = Stack height in feet.

For the four (4) boilers, identified as boiler 1, boiler 2, boiler 3, and boiler 4:

$$Pt = 50 \times 0.67 \times 25.0 / 76.5 \times (42.06)^{0.75} \times 4^{0.25} = 0.469 \text{ lb/MMBtu}$$

Based on Appendix A, the worst case potential to emit PM emissions from the four (4) boilers limited to 0.469 pound PM per million British thermal units is 1.40 tons per year.

$$1.40 \text{ tons/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.320 \text{ lb/hr}$$
$$(0.320 \text{ lb/hr} / 42.06 \text{ MMBtu/hr}) = 0.008 \text{ lb PM / MMBtu}$$

Therefore, the four (4) boilers identified as boiler 1, boiler 2, boiler 3, and boiler 4 will comply with this rule.

326 IAC 6-2-3 (Particulate Emissions Limitations for Facilities Constructed prior to September 21, 1983)

The one (1) boiler, identified as boiler 5, installed in 1962, firing natural gas, with a total heat input capacity of 58.46 million British thermal units per hour, must comply with the PM emission limitation of 326 IAC 6-2-3. This limitation is based on the following equation as given in 326 IAC 6-2-3:

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBTU) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h = Stack height in feet.

For the one (1) boiler, identified as boiler 5,

$$Pt = 50 \times 0.67 \times 25.0 / 76.5 \times (58.46)^{0.75} \times 1^{0.25} = 0.518 \text{ lb/MMBtu}$$

Based on Appendix A, the worst case potential to emit PM emissions from the one (1) boiler limited to 0.518 pound PM per million British thermal units is 0.546 tons per year.

$$0.546 \text{ tons/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.125 \text{ lb/hr}$$
$$(0.125 \text{ lb/hr} / 58.46 \text{ MMBtu/hr}) = 0.002 \text{ lb PM / MMBtu}$$

Therefore, the one (1) boiler identified as boiler 5, will comply with this rule.

326 IAC 6-3-2(d) (Particulate)

Pursuant to 326 IAC 6-3-2 (d) (Particulate) and FESOP 091-5568-00091, issued on September 17, 1997, the particulate matter (PM) from the two (2) paint booths, identified as E-Coat-1 paint booth, and E-Coat-2 paint booth shall be controlled by dry particulate filters, and the control device shall be operated in accordance with manufacturer's specifications.

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

- (a) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the particulate matter (PM) from the three (3) belt blasters, identified as 2226, equipped with a baghouse, exhausted through stack 31, shall be limited to 1.51 pounds per hour, each, at a process weight rate of 450 pounds per hour, each, using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Based on Appendix A, the potential PM emission rate, after controls, is:

$$0.078 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.018 \text{ lb/hr}$$

The PM emissions from the three (3) belt blasters, identified as 2226, are 0.018 pounds of PM per hour, total, which is less than the allowable of 1.51 pounds of PM per hour, each. Therefore, the three (3) belt blasters, identified as 2226, are in compliance with this rule.

The baghouse does not have to be in operation at all times the three (3) belt blasters, identified as 2226, are in operation, in order to comply with any applicable rules.

- (b) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the particulate matter (PM) from the one (1) cabinet blaster, identified as 2562, equipped with a baghouse, exhausted through stack 30, shall be limited to 1.34 pounds per hour at a process weight rate of 375 pounds per hour using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Based on Appendix A, the potential PM emission rate, after controls, is:

$$0.210 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.048 \text{ lb/hr}$$

The PM emissions from one (1) cabinet blaster, identified as 2562, are 0.048 pounds of PM per hour, which is less than the allowable of 1.34 pounds of PM per hour. Therefore, one (1) cabinet blaster, identified as 2562, is in compliance with this rule.

The baghouse shall be in operation at all times one (1) cabinet blaster, identified as 2562,

is in operation, in order to comply with this limit.

- (c) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the particulate matter (PM) from the one (1) cabinet blaster, identified as 2365, equipped with a baghouse, exhausted through stack 29, shall be limited to 2.16 pounds per hour at a process weight rate of 771 pounds per hour using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Based on Appendix A, the potential PM emission rate, after controls, is:

$$0.056 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.013 \text{ lb/hr}$$

The PM emissions from the one (1) cabinet blaster, identified as 2365, are 0.013 pounds of PM per hour, which is less than the allowable of 2.16 pounds of PM per hour. Therefore, the one (1) cabinet blaster, identified as 2365, is in compliance with this rule.

The baghouse does not have to be in operation at all times the one (1) cabinet blaster, identified as 2365, is in operation, in order to comply with any applicable rules.

- (d) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the particulate matter (PM) from the one (1) cabinet blaster, identified as 3343, equipped with a baghouse, exhausted through stack 177, shall be limited to 3.82 pounds per hour at a process weight rate of 1,800 pounds per hour using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Based on Appendix A, the potential PM emission rate, after controls, is:

$$0.026 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.006 \text{ lb/hr}$$

The PM emissions from the one (1) cabinet blaster, identified as 3343, are 0.006 pounds of PM per hour, which is less than the allowable of 3.82 pounds of PM per hour. Therefore, the one (1) cabinet blaster, identified as 3343, is in compliance with this rule.

The baghouse does not have to be in operation at all times the one (1) cabinet blaster, identified as 2365, is in operation, in order to comply with any applicable rules.

- (e) Pursuant to 326 IAC 6-3-2(e) (Particulate emission limitations, work practices, and control technologies), the particulate matter (PM) from the three (3) cabinet blasters, identified as 2193, 2298, and 3201, each equipped with a baghouse, shall be limited to 0.551 pounds per hour, each, at a process weight rate of 36 pounds per hour.

Based on Appendix A, the potential PM emission rate, after controls, is:

$$0.075 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.017 \text{ lb/hr, each}$$

The PM emissions from the three (3) cabinet blasters, identified as 2193, 2298, and 3201, are 0.017 pounds of PM per hour, each, which is less than the allowable of 0.551 pounds of PM per hour, each. Therefore, the three (3) cabinet blasters, identified as 2193, 2298, and 3201, are in compliance with this rule.

The baghouses shall be in operation at all times the three (3) cabinet blasters, identified as 2193, 2298, and 3201, are in operation, in order to comply with this limit.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied to the metal windshield wiper parts shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings. Note that the paint supplier certifies that each batch of coatings applied to metal contains no greater than 3.5 pounds of VOCs per gallon of coating less water.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the calculations made, the paint booths and dip tanks are in compliance with this requirement.

State Rule Applicability - Insignificant Activities

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the particulate matter (PM) from the brazing, cutting, soldering, welding, trimming, grinding and machining, and extruding facilities shall not exceed the allowable emission rate of particulate matter per hour as determined by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

326 IAC 8-3-3 (Open Top Vapor Degreasing Operations)

The five (5) maintenance and tools degreasers, are subject to the provisions of 326 IAC 8-3-3 (Open Top Vapor Degreasing Operations) because they were constructed after the rule applicability date of January 1, 1980. The owner or operator shall:

- (a) equip the open top vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;
- (b) keep the cover closed at all times except when processing workloads through the degreaser;
- (c) minimize solvent carry-out by:
 - (1) Racking parts to allow complete drainage;
 - (2) Moving parts in and out of the degreaser at less than eleven (11) feet per minute;

- (3) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
- (4) Tipping out any pools of solvent on the cleaned parts before removal;
- (5) Allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;
- (d) not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
- (e) not occupy more than half of the degreaser's open top area with the workload;
- (f) not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;
- (g) never spray above the vapor level;
- (h) repair solvent leaks immediately, or shut down the degreaser;
- (i) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;
- (j) not use workplace fans near the degreaser opening;
- (k) not allow visually detectable water in the solvent exiting the water separator; and
- (l) provide a permanent, conspicuous label summarizing the operating requirements.

326 IAC 8-3 (Organic Solvent Degreasing Operations)

The three (3) production parts degreasers are not subject to any of the provisions of 326 IAC 8-3 (Organic Solvent Degreasing Operations) because the solvent used is an alkaline based solvent which contains no volatile organic compounds (VOCs).

Testing Requirements

All testing requirements from previous approvals were incorporated into this FESOP:

- (a) Stack tests for the shotblast units 3343, 2226, 2365, and 2562 were performed on March 17, 18, 19, and 20, 1998, respectively. Each stack was in compliance with the allowable limits pursuant to 326 IAC 6-3-2.
- (b) The compliance stack test for unit 3343 shall be performed by March 17, 2003, which corresponds to five (5) years since the latest valid stack test.
- (c) The compliance stack test for unit 2226 shall be performed by March 18, 2003, which corresponds to five (5) years since the latest valid stack test.
- (d) The compliance stack test for unit 2365 shall be performed by March 19, 2003, which corresponds to five (5) years since the latest valid stack test.
- (e) The compliance stack test for unit 2562 shall be performed by March 20, 2003, which corresponds to five (5) years since the latest valid stack test.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP. The compliance monitoring requirements applicable to this source are as follows:

The compliance monitoring requirements applicable to this source are as follows:

- (a) The two (2) paint booths, identified as E-Coat-1 paint booth and E-Coat-2 paint booth, have applicable compliance monitoring conditions as specified below:
 - (1) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters for the two (2) paint booths, identified as E-Coat-1 paint booth and E-Coat-2 paint booth. To monitor the performance of the dry filters, weekly observations shall be made of the overspray while the spray booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
 - (2) Monthly inspections shall be performed of the coating emissions from the two (2) paint booth stack exhausts, known as Stacks 46 and 153, for the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
 - (3) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Note that compliance monitoring is not required for any of the shotblasters equipped with baghouses because the allowable PM emission rates are all less than ten (10) pounds per hour.

Conclusion

The operation of this stationary windshield wiper manufacturing source shall be subject to the conditions of the attached proposed FESOP No.: F 091-15098-00091.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

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Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001

E-Coat Paint Booths 1 & 2

Material	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Maximum Coating Usage Rate* (gal/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
W49491	9.67	27.64%	0.00%	27.64%	0.00%	63.43%	4.39	2.67	2.67	11.73	281.60	51.4	47.1	4.21	65%
W49385	9.67	27.67%	0.00%	27.67%	0.00%	62.47%	4.39	2.68	2.68	11.75	281.91	51.4	47.1	4.28	65%
W49484	9.57	28.37%	0.00%	28.37%	0.00%	62.86%	4.39	2.72	2.72	11.92	286.05	52.2	46.1	4.32	65%
MHSW49409	8.59	31.99%	0.00%	31.99%	0.00%	58.69%	4.39	2.75	2.75	12.06	289.52	52.8	39.3	4.68	65%
W49436	9.61	27.98%	0.00%	27.98%	0.00%	63.47%	4.39	2.69	2.69	11.80	283.30	51.7	46.6	4.24	65%

PM		Control Efficiency	98.00%				
Potential Emissions, per booth:			12.06	289.52	52.8	47.1	
Potential Emissions, both booths:		Uncontrolled	24.12	579.04	105.7	94.2	
		Controlled	24.12	579.04	105.7	1.88	

E-Coat Paint Booths 1 & 2 (Dip Tanks)

Material	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Maximum Coating Usage Rate* (gal/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
830-819	9.51	7.40%	0.00%	7.40%	0.00%	92.00%	4.39	0.70	0.70	3.09	74.15	13.5	0.00	0.76	100%
648-523	9.05	5.00%	0.00%	5.00%	0.00%	94.00%	4.39	0.45	0.45	1.99	47.68	8.70	0.00	0.48	100%

22.2

* Maximum usage rate expressed as gallons per hour, rather than units/hr x gallons/unit, due to the widely varying size and units per hour of pieces coated.

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations HAP Emissions from Surface Coating

Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001

E-Coat Paint Booths 1 & 2 (usage and emissions PER BOOTH)

Material	Density (Lb/Gal)	Maximum Coating Usage Rate (gal/hour) *	Weight % MEK	Weight % Xylene	Weight % Glycol Ethers	MEK Emissions (ton/yr)	Xylene Emissions (ton/yr)	Glycol Ethers Emissions	Total State Potential Emissions from Indiv. Facility (ton/yr)
W49491	9.67	4.39	0.00%	15.00%	5.00%	0.00	27.9	9.30	27.9
W49385	9.67	4.39	0.00%	5.00%	0.00%	0.00	9.30	0.00	9.30
W49484	9.57	4.39	0.00%	15.00%	5.00%	0.00	27.6	9.20	27.6
MHSW49409	8.590	4.39	10.00%	5.00%	0.00%	16.5	8.26	0.00	24.8
W49436	9.610	4.39	0.00%	15.00%	0.00%	0.00	27.7	0.00	27.7

Maximum Annual HAP Emissions, per booth: 16.5 27.9 9.30 27.9

Maximum Annual HAP Emissions, both booths:

33.0

55.8

55.8
Max. Annual HAPs

METHODOLOGY

* Maximum usage rate expressed as gallons per hour, rather than units/hr x gallons/unit, due to the widely varying size and units per hour of pieces coated.

HAPS emission rate (tons/yr) = Density (lb/gal) * Max Applied (gal/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 pounds

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

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**Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001**

Four Boilers installed in 1961

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

42.0600

368.45

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.350	1.40	0.111	18.4	1.01	15.5

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 4 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

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**Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.87E-04	2.21E-04	1.38E-02	3.32E-01	6.26E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	9.21E-05	2.03E-04	2.58E-04	7.00E-05	3.87E-04	0.348

Methodology is the same as page 3.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

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**Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001**

One Boiler installed in 1962

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

16.4000

143.66

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.136	0.546	0.043	7.18	0.395	6.03

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 6 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

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**Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.51E-04	8.62E-05	5.39E-03	1.29E-01	2.44E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	3.59E-05	7.90E-05	1.01E-04	2.73E-05	1.51E-04	0.136

Methodology is the same as page 5.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Combustion Associated with E-coat 1**

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**Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

4.0000

35.04

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.033	0.133	0.011	**see below	0.096	1.47

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 8 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

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**Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.68E-05	2.10E-05	1.31E-03	3.15E-02	5.96E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	8.76E-06	1.93E-05	2.45E-05	6.66E-06	3.68E-05	0.033

Methodology is the same as page 7.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Combustion Associated with E-coat 2**

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**Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

10.5

91.98

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.087	0.350	0.028	**see below	0.253	3.86

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 10 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

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**Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	9.66E-05	5.52E-05	3.45E-03	8.28E-02	1.56E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	2.30E-05	5.06E-05	6.44E-05	1.75E-05	9.66E-05	0.087

Methodology is the same as page 9.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations**Baghouse Operations****Nine (9) Shotblasters**

Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	Emission Rate before Controls (lb/hr)	Emission Rate before Controls (tons/yr)	Emission Rate after Controls (lb/hr)	Emission Rate after Controls (tons/yr)
2365	99.0%	0.001	1500.0	1.29	5.63	0.013	0.056
2562	99.0%	0.007	800.0	4.800	21.02	0.048	0.210
2226	99.0%	0.0013	1600.0	1.783	7.81	0.018	0.078
3343	99.0%	0.001	700.0	0.600	2.63	0.006	0.026
2193	99.0%	0.005	400.0	1.714	7.51	0.017	0.075
2298	99.0%	0.005	400.0	1.714	7.51	0.017	0.075
3201	99.0%	0.005	400.0	1.714	7.51	0.017	0.075
					59.6		0.596

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Insignificant Combustion**

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**Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

15.6

136.66

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.130	0.519	0.041	**see below	0.376	5.74

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 13 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

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**Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.43E-04	8.20E-05	5.12E-03	1.23E-01	2.32E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	3.42E-05	7.52E-05	9.57E-05	2.60E-05	1.43E-04	0.129

Methodology is the same as page 12.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: State Potential Emissions Calculations
Insignificant Degreasing

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Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001

Five Maintenance and Tool Degreasers

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Gal of Mat (gal/day)	Potential VOC (lb/day)	Potential VOC (ton/yr)
CC-100+	6.54	100.00%	0.0%	100.0%	1.5	9.81	1.79
State Potential Emissions						9.81	1.79

METHODOLOGY

Potential VOC Pounds per Day = Solvent Density (lbs/gallon) * weight % volatiles * solvent consumption (gallons/day)

Potential VOC Tons per Year = Potential VOC Pounds per Day * (365 days/yr) * (1 ton/2000 lbs)

**Appendix A: Emission Calculations
Baghouse Operations**

Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001

**Insignificant Activities
Extrusion**

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	Emission Rate before Controls (lb/hr)	Emission Rate before Controls (tons/yr)	Emission Rate after Controls (lb/hr)	Emission Rate after Controls (tons/yr)
Smog Hog	94.4%	0.001	5000.0	0.77	3.35	0.043	0.188

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

**Appendix A: Emission Calculations
One (1) Emergency Diesel Generator**

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Company Name: Federal-Mogul Corporation
Address City IN Zip: 402 Royal Road, Michigan City, IN 46306
FESOP: F 091-15098
Plt ID: 091-00091
Reviewer: Craig J. Friederich
Date: November 29, 2001

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity MMBtu/hr S= 0.05 = WEIGHT % SULFUR

4.1

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.1	0.0573	0.1 (1.01S)	3.2 **see below	0.1	0.85
Potential Emission in tons/yr	0.103	0.059	0.052	3.28	0.092	0.871

**NOx emissions: uncontrolled = 3.2 lb/MMBtu, controlled with ignition timing retard = 1.9 lb/MMBtu

Methodology

Emission Factors are from AP 42 (Supplement B 10/96) Table 3.4-1 and Table 3.4-2

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 500 hr/yr / (2,000 lb/ton)